

# TEXAS STATE SOIL & WATER CONSERVATION BOARD



## SEMI - ANNUAL REPORT

TO THE

GOVERNOR,  
LIEUTENANT GOVERNOR,  
AND  
SPEAKER OF THE HOUSE

JULY 1, 2011



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# Forward

In response to S.B. 1828 passed by the 78<sup>th</sup> Texas Legislature in Regular Session, 2003, the Texas State Soil and Water Conservation Board presents this review of its programs and activities. S.B. 1828 added §201.028 to the Texas Agriculture Code to provide that the TSSWCB shall prepare and deliver to the Governor, the Lieutenant Governor, and the Speaker of the House of Representatives a report, not later than January 1 and July 1 of each year, relating to the status of the budget areas of responsibility assigned to the State Board including outreach programs, grants made and received, federal funding applied for and received, special projects, and oversight of soil and water conservation district activities.

The FY10 Operating Budget with FY08 and FY 09 expenditures is attached to this report. Information on grants made to local districts and other entities is incorporated within the program section it involves. Ongoing Federal grant program projects under the Clean Water Act are provided in another attachment.

The Texas State Soil & Water Conservation Board takes pride in the accomplishments and remarkable progress that have been made in soil and water conservation in this state. Often environmental successes are slow to be realized. We have realized and previously reported one success story that involves reducing the level of Atrazine in several water bodies, particularly the Aquilla Reservoir in the Hill County-Blackland SWCD.

However, we recognize there remains a continuing challenge and an ongoing need to ensure our land has the capability to produce food and fiber for future Texans. Because of changes in land use, ownership, technology, and population growth, the need for soil and water conservation programs will remain critical. Texas has a finite number of acres to provide for the needs and desires of citizens and visitors, and this places an ever-increasing demand on agricultural land. Farmers and ranchers face complex decisions concerning the best ways to manage and utilize the land available to them.

We believe that soil and water conservation programs must remain dynamic as land uses change and technology improves to make some conservation practices more capable of meeting demands on soil and water resources. We also maintain the belief that the purpose of the soil and water conservation program is to promote the wise use of our renewable natural resources and provide for the conservation and enhancement of the soil and water resources of this state through and by the dynamic decisions of local soil and water conservation districts which promotes the use of each acre of land within its capabilities and treating it according to its needs.

From the beginning, the Texas State Soil and Water Conservation Board and local soil and water conservation districts have formed an organizational framework through which various complex governmental conservation programs are delivered to local landowners and operators. This relationship has successfully been utilized to disseminate sound management techniques and practices to maintain individual productive land uses to provide for the needs of present and future generations.

To the landowners of Texas, the individual soil and water conservation district directors, and the many agencies and organizations assisting and working with our programs, we offer our sincere thanks.

## Historical Background

In the early history of the United States, those involved in agriculture often did not consider the conservation of soil and water resources. Land was cleared and put into farm production. When the land quit producing at a profitable level, the farmers merely moved on to new land farther west and started the process over again. There was no need to be concerned with soil conservation, as there was a seemingly unlimited supply of virgin land waiting to be tilled. This process continued through the 1800s and into the early 1900s. With the outbreak of World War I, farmers in the Great Plains states were encouraged to break out native grassland to grow wheat and other foodstuffs to feed the nation and the world. As a result of these and other unwise management practices and the fact that the farmlands were experiencing long periods of drought, the 1930s produced some of the worst dust storms the nation had ever seen. Clouds of dust rolled across the plains states sending dust storms through the south and into the nation's capital. At the same time, the nation was in the midst of a great economic depression. The federal government, seeking ways to put people back to work and encourage conservation, created the Civilian Conservation Corps and Soil Erosion Service. Through these mechanisms, demonstration projects were initiated to train technicians and to educate the public in ways to conserve soil resources. These programs were successful in putting people back to work, but lacked the local ties to establish lasting conservation programs.

One of the early day leaders in the national effort to control soil erosion was Hugh Hammond Bennett from North Carolina. After graduation from the University of North Carolina in 1903, Hugh Bennett took a job with the Bureau of Soils in the United States Department of Agriculture. Because of his experience, scientific knowledge and leadership ability, he was put in charge of the Soil Erosion Service when it was created in 1933. In 1935, P.L. (Public Law) 46 was passed creating the Soil Conservation Service within the U.S. Department of Agriculture and Hugh Bennett became the first Chief of the agency. He soon became internationally known for his accomplishments in conservation work.

With the help of Congressman Buchanan from Columbus, Texas, Hugh Bennett was able to persuade President Franklin Roosevelt that the soil resources of this nation were being wasted. He convinced the President that a Model Soil Conservation Act should be developed and sent to the governors of each state for passage by their state legislatures. The purpose of this Model Act would be to develop programs at the state and local level to control soil erosion.

In 1936, such a Model Act was sent to the governors with the endorsement of President Roosevelt. The Model Act, developed in Washington, was patterned after the Texas Wind Erosion Act, the Grass Conservation Acts in the Northern High Plains and certain water conservation district law.

In 1937 legislation was introduced in the Texas Legislature based on this Model Act. It is reported that as many as 25 different versions of this soil conservation law were considered before a final version was passed. There was much heated discussion of the proposed legislation. When the final version was adopted, the bill contained many undesirable features. The law would have set up Soil Conservation Districts automatically on a county basis and made County Commissioners Courts the governing body. A portion of the county tax was to be used to finance the program and county agricultural agents were to be the administrative officers.

A number of agricultural leaders from across the state had, by this time, become concerned about the newly passed legislation. It was their opinion that, if the responsibility for installing and maintaining conservation measures lay in the hands of the land owners, the control of such a program should also be in their hands.

As a result of these and other concerns, a group of landowners led by V.C. Marshall of Heidenheimer, Texas, convinced the Governor to veto the 1937 legislation.

Hard feelings among agricultural leaders resulted from the attempt to pass this soil conservation law. Under the leadership of Mr. Marshall, a concerted effort was made during the interim between legislative sessions to heal the old wounds and to put together a version of a law that would be generally accepted by the farmers and ranchers of Texas. Mr. Marshall organized a committee of leaders from across the state to promote the passage of a new Soil Conservation Law. He traveled many miles at his own expense seeking the views of agricultural leaders and promoting the idea of the Soil Conservation District Program.

The key points Mr. Marshall felt should be included in the new law were that (1) farmers and ranchers should determine whether or not a Soil Conservation District was needed and hold a local option election prior to the establishment of the district; (2) the program should be controlled by landowners; and (3) the Soil Conservation Districts should have no taxing authority or the power of eminent domain.

In 1939, the Texas Legislature passed H.B. (House Bill) 20 which incorporated those features and was the first Soil Conservation Law for the state. The law created the State Soil Conservation Board and allowed for the creation of the Soil Conservation Districts. Mr. Marshall was elected as the first Chairman of the Soil Conservation Board and later resigned to become the first Executive Director of the agency.

On April 30, 1940, the Secretary of the State issued Certificates of Organization for the first 16 Soil Conservation Districts paving the way for the program we now operate. Today, Texas has 216 local soil and water conservation districts that encompass more than 99% of the state.

As previously mentioned, the Model Act endorsed by President Roosevelt was in part patterned after the Texas Wind Erosion Act. Texas was already making attempts to address soil conservation as a result of the “Dust Bowl” days of the 1930s. The 44<sup>th</sup> Legislature in 1935 passed legislation authorizing the establishment of Wind Erosion Conservation Districts. This law provided for the creation of districts to “conserve the soil by prevention of unnecessary erosion caused by winds, and the reclamation of lands that have been depreciated or denuded of soil by reasons of winds.” Although a number of Wind Erosion Control Districts were created, the passage of the Soil Conservation District Law in 1939 resulted in those districts becoming dormant.

In 1975, Governor Dolph Briscoe, by Executive Order, designated the TSSWCB as lead agency to assume the planning and management responsibility for control of agricultural and silvicultural nonpoint source pollution as required by the Federal Water Pollution Control Act.

In 1981, the 67<sup>th</sup> Legislature passed H.B. 1436, which for the first time codified the agricultural laws of Texas. Title 7, Chapter 201 of this code contains the portion pertaining to Soil and Water Conservation.

In 1985, the 69<sup>th</sup> Legislature passed S.B. 1083 creating a Brush Control Program in Texas and granting new powers and responsibilities, without funding, to the TSSWCB and Soil and Water Conservation Districts under Chapter 203 of the Agriculture Code.

In 1999, the TSSWCB received its first appropriation in the FY00-01 biennium to control water-depleting brush and trees, such as cedar and mesquite. The program received \$9.1 million to establish a pilot project in the North Concho Watershed.

In 1993, the 73<sup>rd</sup> Legislature passed S.B. 503 which named the TSSWCB the lead agency to address water quality issues relating to runoff from diffused, or nonpoint sources resulting from agricultural and forestry operations. In 1999, the Legislature expanded the TSSWCB's environmental mission and appropriated money to address water pollution from nonpoint sources under a separate, federally mandated program.

The leaders who framed the Texas Soil and Water Conservation Law in 1939 recognized that landowners and operators of private land constitute the basic resource for the conservation of our renewable natural resources. Without the support and willing participation of private landowners and operators in the development and implementation of soil and water conservation programs there is little hope of success. Local soil and water conservation districts led by farmers and ranchers who know the land and the local conditions and problems have the means to develop conservation plans that address each acre of land specific to its needs to solve or reduce the severity of its problems.

## **Sunset**

The Texas State Soil and Water Conservation Board was under Sunset review during the 82<sup>nd</sup> Legislative Session. Last June, the Sunset Advisory Commission made their decisions concerning the agency and recommended that the agency be continued for another 12 years.

During the Regular Session, HB 1808 by Cook was passed and signed by Governor Perry. Changes to agency law, which become effective September 1, 2011 are being incorporated into our law and will be reported on as we make program changes to comply with the law.

## **Organization**

Since inception, the TSSWCB has been governed by five board members, elected by delegates from each of five regions of the state's 216 local soil and water conservation districts. Elections occur annually at regional conventions of the local soil and water conservation districts, with members serving two-year staggered terms. However, with the enactment of S.B. 1828 by the 78<sup>th</sup> Legislature, two Governor appointees join the five elected board members to create a seven-member board. The two Governor appointed positions are listed below. The term of one member appointed by the Governor expires February 1 of each odd-numbered year, and the term of the other member appointed by the Governor expires on February 1 of each even-numbered year.

Elected State Board members must be 18 years of age or older; hold title to farmland or ranchland; and be actively engaged in farming or ranching. The Governor appointees must be actively engaged in the business of farming, animal husbandry, or other business related to agriculture and wholly or partly owns or leases land used in connection with that business; and may not be a member of the board of directors of a conservation district.

The State Board elects its own Chair and generally meets every odd month, unless specific programs or issues require more immediate action. The following list shows the current Board members and which State Board Region they represent.

## Texas State Soil and Water Conservation Board

Member Name	Region	Term	Residence
Scott Buckles	#1	May 3, 2011 – May 7, 2013	Stratford
Marty H. Graham	#2	May 4, 2010 - May 1, 2012	Rocksprings
José O. Dodier, Jr.	#3	May 3, 2011 – May 7, 2013	Zapata
Jerry D. Nichols	#4	May 4, 2010 – May 1, 2012	Nacogdoches
Barry Mahler	#5	May 3, 2011 – May 7, 2013	Iowa Park
Larry D. Jacobs	Appointed	February 1, 2010- February 1, 2012	Montgomery
Joe L. Ward	Appointed	February 1, 2011- February 1, 2013	Telephone

## Staff

Mr. Rex Isom has been the Executive Director since January 2004 and continues to carry out the directives of the State Board and directing staff efforts. We emphasize our agency philosophy as stated in our Strategic Plan, “The State Soil and Water Conservation Board will act in accordance with the highest standards of ethics, accountability, efficiency, and openness. We affirm that the conservation of our natural resources is both a public and a private benefit, and we approach our activities with a deep sense of purpose and responsibility.” Mr. Isom, as Executive Director, is leading the agency in that direction and expects all employees to follow that lead.

As of June 1, 2011, the TSSWCB employed 71 staff, 25 of which work in the Temple headquarters. The remaining employees are field staff, either working out of their homes or located in seven satellite offices, located throughout the state. Due to difficulty in recruiting, engineers services are now being contracted with engineering firms. The following organization chart shows the agency’s current structure.

The current structure of the TSSWCB reflects efforts to maintain more personnel in the field and away from headquarters for a 65% to 35% ratio of Field personnel to Headquarters personnel. The regional office staff along with the program specific staff provides on-site technical assistance to farmers and ranchers. The field staff serves as a liaison between the TSSWCB and local districts. The field staff also provides assistance to local districts and district employees concerning operations, programs, and activities. The regional office staff and the program specific staff coordinate with the Texas Commission on Environmental Quality (TCEQ), Texas AgriLife Extension Service, and the USDA’s Natural Resource Conservation Service (NRCS) to provide technical assistance to landowners to implement Water Quality Management Plans (WQMPs).



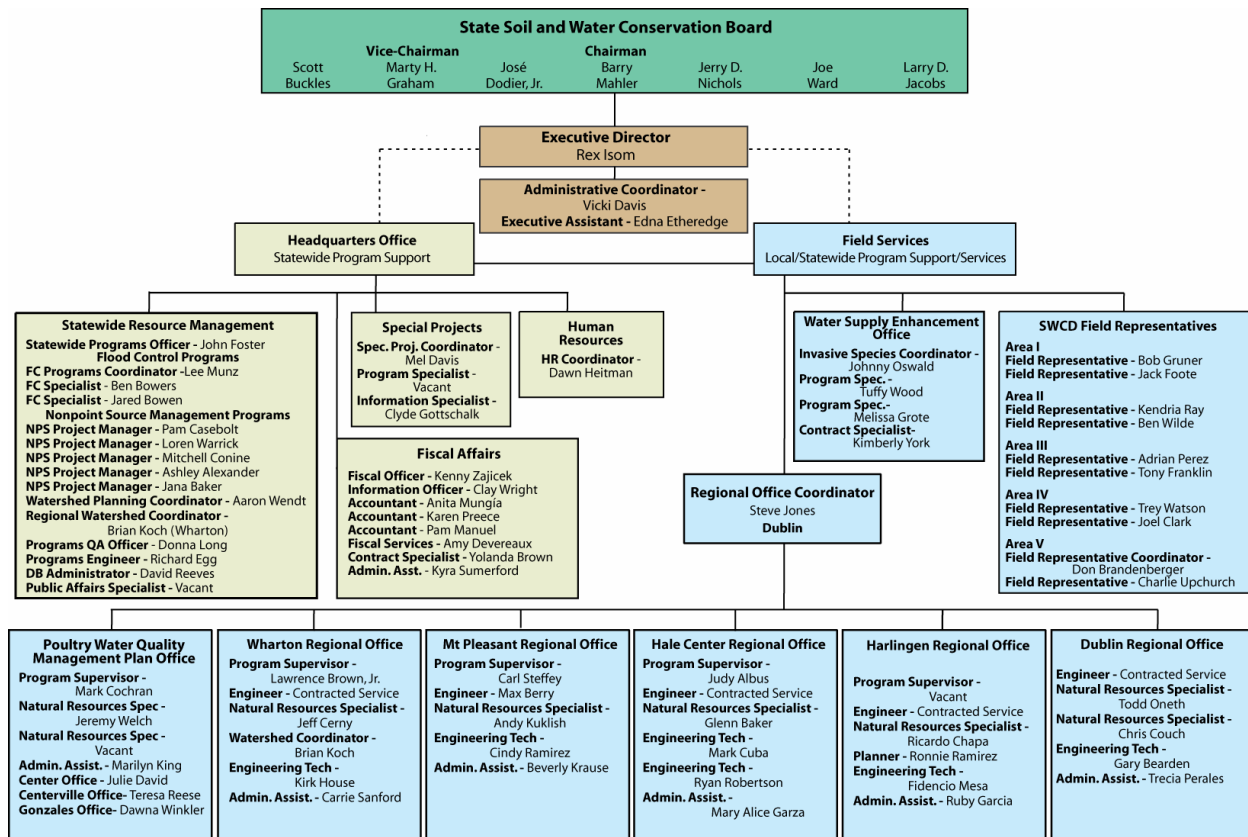


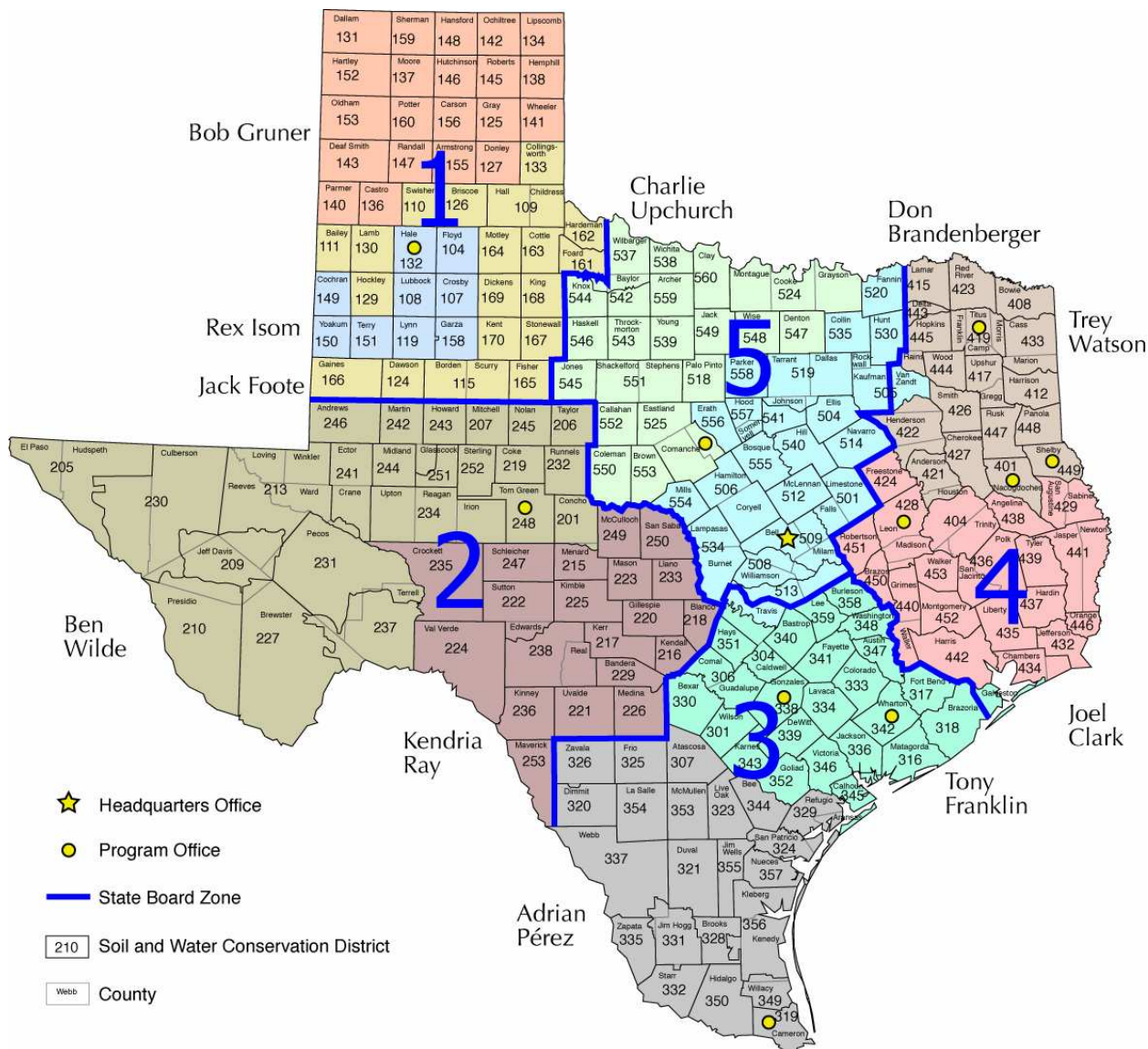
Figure 1. Diagram of Agency Organization

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## Soil and Water Conservation Districts

The TSSWCB performs many of its activities in coordination with the state's 216 local soil and water conservation districts. These local districts are political subdivisions of the state, established through local option elections of agricultural landowners. Districts generally reflect county boundaries, but may also follow river basin or watershed boundaries, depending on the desires of the local landowners.

The following soil and water conservation district map shows the current 216 local districts that cover the entire state. The map also shows the grouping of the districts into the five State Board Districts that respectively elect a State Board member and shows the field staff that is assigned to work with each district within a specific area.



**Figure 2.** Map of State Board Zones and Soil and Water Conservation Districts

Landowners within these local districts elect the five district directors that comprise the districts governing body or board of directors. This board of directors administers the programs and activities of the district. Representatives of the districts within each region then elect the members of the State Board through a series of convention style-elections.

Districts do not have taxing authority and rely on locally generated funds from various activities and programs, federal assistance, county assistance, and state assistance from the TSSWCB. The USDA Natural Resource Conservation Service (NRCS) provides most of the federal assistance available to districts and through cooperative agreements provides technical assistance to farmers and ranchers requesting assistance from the district.

## **Annual State Meeting Of Soil and Water Conservation District Directors**

The Annual State Meeting of Soil and Water Conservation District Directors, required in §201.081, Texas Agriculture Code, is scheduled for October 24-26, 2011 in San Antonio at the Hill Country Hyatt Regency. The 2012 Annual State Meeting is scheduled for the Lost Pines Hyatt Regency in Bastrop on October 29-31. Registration information will go out in July 2011 for the meeting in San Antonio.

## **Director Mileage and Per Diem**

The 81<sup>st</sup> Legislature provided an additional \$134,510 per year to offset costs for the increase in the reimbursement rate for District Director Mileage claims from 18 cents to the current state rate of mileage. The FY 2011 appropriation for this program is \$434,510.

## **District Technical Assistance Funds**

The 81<sup>st</sup> Legislature provided Districts with a 5% across the board increase in Technical Assistance Funds and additional targeted assistance for Total Maximum Daily Loads and Watershed Protection Plans. The TSSWCB disburses Technical Assistance payments to Districts on a reimbursing basis to supplement their efforts in providing assistance to agricultural producers in the state. Distributions are contingent upon Districts filing annual performance reports with the TSSWCB. The FY 2011 appropriation for this program is \$1,778,154.

## **District Conservation Assistance Program**

The 81<sup>st</sup> Legislature provided Conservation Assistance Grants to Districts for the 2010-11 Biennium. The grants are awarded on a matching basis requiring Districts to raise funds from sources other than the TSSWCB. Districts do not have taxing authority and use locally raised funds with this matching grant to support their operational expenses. The FY 2011 appropriation for this program is \$916,364.

## **Programs and Activities of the TSSWCB**

The services and programs provided by the TSSWCB are focused on rural Texas farmers and ranchers, but the results of these services benefit all Texans. For example, many of the flood control structures maintained by SWCDs serve to protect heavily populated areas from flood damage, and also prevent sediment from building up in drinking water supplies. Another example is the use of best management

practices (BMPs), implemented through TSSWCB-certified water quality management plans (WQMPs), to prevent pesticides, nutrients, bacteria and other pollutants from impairing the use of Texas streams, rivers, lakes, and estuaries.

The agency is responsible for numerous natural resource conservation efforts, the most prominent of which is serving as the lead state agency responsible for planning, implementing and managing programs and practices for preventing and abating agricultural and silvicultural (forestry-related) nonpoint source (NPS) water pollution. To fulfill this mandate, the agency jointly administers the *Texas Nonpoint Source Management Program* with the Texas Commission on Environmental Quality (TCEQ). As a result, many of the agency's programs and services, and more than 40% of the agency's annual budget, aim to improve and protect water quality, including the Water Quality Management Plan Program, the Nonpoint Source Grant Program, the Total Maximum Daily Load Program, and the Watershed Protection Plan Program. Additionally, the TSSWCB is a member of the Coastal Coordination Council and the Texas Groundwater Protection Committee.

The TSSWCB is also responsible for programs affecting water quantity. The major existing program is the Water Supply Enhancement Program which seeks to increase water supply through the targeted control of water-depleting brush. Additionally, many BMPs implemented by farmers and ranchers as prescribed in their WQMP have ancillary water conservation benefits – increasing irrigation efficiency and reducing water demand. The TSSWCB is also a member of the Water Conservation Advisory Council.

Other responsibilities include prevention of soil erosion, control of floods, maintaining the navigability of waterways, the preservation of wildlife, protection of public lands, and providing information to landowners regarding the jurisdictions of the TSSWCB and the TCEQ as related to NPS water pollution.

## **Flood Control Programs**

Nearly 2,000 floodwater retarding structures, or dams, have been built over the last 60 years within the State of Texas. The primary purpose of the structures is to protect lives and property by reducing the velocity of floodwaters, and thereby releasing flows at a safer rate. These are earthen dams that exist on private property, and were designed and constructed by the United States Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS). They were built with the understanding that the private property owner would provide the land, the federal government would provide the technical design expertise and the funding to construct them, and then units of local government would be responsible for maintaining them into the future.

Local sponsors of the dams were required before a federal project was begun. Local sponsors signed a watershed agreement which outlined the duties and responsibilities of the federal and local sponsors. In general, local sponsors are required to obtain and enforce easements, conduct operation and maintenance (O&M) inspections, maintain the structures, and implement land treatment measures in the watershed. Soil and water conservation districts (SWCD) are one of the local sponsors in all watershed projects. Other local sponsors include counties, cities, and Water Control and Improvement Districts (WCIDs).

Due to the passage of time and difficulty in raising adequate funds locally, many sponsors approached the Texas Legislature with their concerns over the amount of needed O&M and repairs. In recognition that these dams will continue to serve as a critical protection for our state's infrastructure, private property, and lives, the Legislature appropriated \$15 million dollars to the Texas State Soil and Water Conservation



Board (TSSWCB) for grants to local SWCDs during the 2010-2011 biennium for O&M and structural repairs.

In response to this appropriation, the TSSWCB assembled a representative stakeholder group and began the process of developing programs to deliver the funds to the sponsors of flood control dams during the summer of 2009. It was determined that the most efficient and effective way to proceed was to develop two separate grant programs, one to address O&M, and the other to address structural repairs, due to their difference in complexity.

The O&M Grant Program is a reimbursable grant program for local SWCDs and certain co-sponsors of flood control dams. This program reimburses SWCDs 90% of the cost of an eligible O&M activity as defined by the program rules; the remaining 10% must be paid with non-state funding. Rules for the O&M Grant Program were developed by the TSSWCB staff and a representative stakeholder group during the summer of 2009. The rules were adopted by the State Board on September 17, 2009, and published in the Texas Register on October 9, 2009. The rules became effective October 14, 2009 and the program is now fully operational.

Below in Table 1 is a summary of the Flood Control O&M Grant Program for FY 2010 and FY 2011 as of 6/20/2011.

**Table 1.** Flood Control O&M Grant Program Budget

FY 10 Contracted \$555,129.14		FY 11 Allocation \$2,472,008.85	
Original O&M	Original Admin	Original O&M	Original Admin
\$528,652.54	\$26,476.60	\$2,354,635.88	\$117,372.97
Spent O&M	Spent Admin	Spent O&M	Spent Admin
\$450,086.71	\$21,029.06	\$1,440,906.07	\$71,438.68
Remaining O&M	Remaining Admin	Remaining O&M	Remaining Admin
\$79,970.77	\$3,998.49	\$913,729.81	\$45,934.29
Total FY 10 Contract Remaining		Total FY11 Remaining	
\$83,969.26		\$959,664.10	

Rules for the Structural Repair Grant Program were adopted by the State Board on March 18, 2010, and became effective April 25, 2010. On May 4, 2010 districts and sponsors were notified that the TSSWCB was seeking applications for structural repair projects on flood control dams for FY 2010 in accordance with Texas Administrative Code, Chapter 529, Subchapter B. Seventeen applications were received covering thirty-nine dams. A total of 18 flood control dams will receive state grant funding from FY2010. Of the 18 dams, 5 are also receiving funding through the USDA-NRCS Emergency Watershed Protection (EWP) Program for disaster recovery; the TSSWCB is providing 95% of the non-federal match requirement (25%) for these dams. The remaining 13 dams are receiving state grant funds providing 95% of the total cost of each project. In total, \$3,915,471 of FY 2010 state repair grant funds have been obligated.

On September 30, 2010 districts and sponsors were notified that the TSSWCB is seeking applications for structural repair projects on flood control dams for FY 2011 in accordance with Texas Administrative Code, Chapter 529, Subchapter B. The TSSWCB received ten applications on sixteen dams for structural repair projects. TSSWCB staff is finalizing decisions on applications submitted for FY2011 grant funding and will be contacting potential grantees in the near future.

## Texas Nonpoint Source Management Program

The federal Clean Water Act (CWA) requires States to develop a program to protect the quality of water resources from the adverse effects of NPS water pollution. The *Texas NPS Management Program* is the State's official roadmap for addressing NPS pollution and is jointly administered by the TSSWCB and the TCEQ. The program publication is updated every five years. The most recent revision was submitted to the U.S. Environmental Protection Agency (EPA) by the Governor in December 2005. After discussions among TCEQ, TSSWCB, and EPA staff about the current timeline for updating the *Texas NPS Management Program* document by December 2010, it was decided that an extension would be necessary to incorporate new programmatic initiatives and ensure an adequate public review process. On August 16, 2010, EPA approved extending the applicability of the current *Texas NPS Management Program* document through July 2012.

The *Texas NPS Management Program* utilizes baseline water quality management programs and regulatory, voluntary, financial, and technical assistance approaches to achieve a balanced program. NPS pollution is managed through assessment, planning, implementation, and education. The TSSWCB and the TCEQ have established goals and objectives for guiding and tracking the progress of NPS management in Texas.

On March 1, 2011, TSSWCB distributed the *2010 Annual Report on Managing NPS Water Pollution in Texas* to all SWCDs; the report is jointly published by the TSSWCB and the TCEQ. In order to continue receiving CWA §319(h) funds, the State must annually report to EPA on success in achieving the goals and objectives of the *Texas NPS Management Program*. The report highlights the State's efforts during FY2010 to collect data, assess water quality, implement projects that reduce or prevent NPS pollution, and educate and involve the public to improve and maintain the quality of water resources. The report is available at <http://www.tsswcb.state.tx.us/reports#nps>.

Implementation of the *Texas NPS Management Program* involves partnerships among many organizations. With the extent and variety of NPS issues across Texas, cooperation across political boundaries is essential. Many local, regional, state, and federal agencies play an integral part in managing NPS pollution, especially at the watershed level. SWCDs are vital partners in working with landowners to implement BMPs that prevent and abate agricultural and silvicultural NPS water pollution.

Multiple water quality programs administered by and/or coordinated through TSSWCB collectively represent the agency's efforts in supporting the goals and objectives of the *Texas NPS Management Program* including:

- Nonpoint Source Grant Program
- Total Maximum Daily Load (TMDL) Program
- Watershed Protection Plan (WPP) Program
- Water Quality Management Plan (WQMP) Program
- Coastal Coordination Council Function
- Texas Groundwater Protection Committee Function

More information on the *Texas NPS Management Program* is available at <http://www.tsswcb.state.tx.us/managementprogram>.

## Nonpoint Source Grant Program

The NPS Grant Program is administered by the TSSWCB for the purpose of providing funding as grants to cooperating entities for activities that address the goals and objectives stated in the *Texas NPS Management Program*. The Texas Legislature and the U.S. Congress (through the EPA) provide funding to the TSSWCB to administer the agricultural and silvicultural components of the *Texas NPS Management Program* through the TSSWCB NPS Grant Program.

Agricultural and silvicultural NPS pollution prevention and abatement activities that can be funded through the NPS Grant Program include the following: implementation of nine-element WPPs and the NPS portion of Total TMDL Implementation Plans (I-Plan), surface water quality monitoring, demonstration of innovative best management practices (BMPs), technical assistance and financial incentives for the development and implementation of WQMPs, public outreach/education, development of nine-element WPPs, and monitoring activities to determine the effectiveness of specific pollution prevention methods.

On February 15-16, 2011, TSSWCB staff met with EPA and TCEQ staff for the annual end-of-year review of the *Texas NPS Management Program* and the NPS Grant Program. Many priority issues affecting both state agencies were discussed in the two-day meeting including watershed restoration, targeted monitoring, and WPPs. Both agencies discussed on-going efforts to develop and implement WPPs and TMDLs, and the status of educational projects. The group discussed coordination of water quality restoration activities with other state and federal agencies, progress in revising the *Texas NPS Management Program* document, and the new watershed action planning process being developed by TCEQ. The meeting also highlighted the program's accomplishments, goals, and plans for the coming year.

More information on the TSSWCB NPS Grant Program is available at <http://www.tsswcb.state.tx.us/managementprogram/browseactive>.

## Clean Water Act §319(h) Grant Funding

Congress enacted §319(h) of the CWA in 1987, establishing a national program to control NPS water pollution. Through §319(h), federal funds are provided annually through the EPA to States for the implementation of each State's NPS Management Program. Texas' share of the §319(h) funding is divided equally between the TCEQ and the TSSWCB. Over the past several years, the State's allocation has been approximately \$9 million per year.

TSSWCB is currently administering \$14.3 million in unliquidated federal funds from FY2005-FY2010 CWA §319(h) allocations. There are currently 48 ongoing §319(h) grant-funded projects addressing a wide array of agricultural and silvicultural NPS issues; a list and brief description of ongoing projects is provided in Attachment 2. Specific project activities include implementing BMPs to abate NPS pollution from animal feeding operations, grazing livestock operations and row crop operations; providing technical assistance through SWCDs for the development of WQMPs; providing financial incentives for implementing certain BMPs prescribed in WQMPs; supporting various targeted educational programs; developing and implementing WPPs and implementing the NPS portion of TMDL I-Plans.

Quarterly progress reports for ongoing projects were received on January 15, 2011 and April 15, 2011. To date, reports have been received for 100% of the projects. These reports are entered semi-annually into EPA's Grants Reporting and Tracking System.

TSSWCB published the FY2011 Request for Proposals (RFP) for the NPS Grant Program on October 8, 2010. The RFP was published in the *Texas Register*, posted on the TSSWCB website, and all SWCDs and cooperating entities were notified of this funding opportunity. The deadline for proposal submission was November 19, 2010. TSSWCB received 26 proposals requesting a total of \$10,877,077 in federal funds. TSSWCB's FY2010 CWA §319(h) allocation from EPA is \$4,578,700. TSSWCB staff is working with EPA to negotiate scopes of work and budgets for proposals that were selected for funding. The full grant application must be submitted to EPA in summer 2011 for review and approval.

### **State General Revenue Grant Funding**

The 80<sup>th</sup> Texas Legislature appropriated general revenue funds to the TSSWCB for the purpose of planning, implementing, and managing programs and practices for preventing and abating agricultural and silvicultural NPS water pollution in impaired watersheds; the 81<sup>st</sup> Texas Legislature renewed this appropriation. On September 17, 2009, the TSSWCB approved a revised *TSSWCB Policy on TMDLs and Watershed Planning, Assessment, and Implementation Activities* which provides guidance to staff on directing state appropriations for the NPS Grant Program. The TSSWCB has approved operating budgets for FY2009, FY2010, and FY2011 that allocated a total of \$3.79 million in state general revenue to the NPS Grant Program.

TSSWCB is currently administering \$2.7 million in unliquidated state funds from FY2009-FY2011 State NPS Grant Program allocations. There are currently 10 ongoing general revenue-funded projects addressing an array of agricultural and silvicultural NPS issues; a list and brief description of ongoing projects is provided in Attachment 3. These projects are primarily being used to implement agricultural NPS components of TMDL I-Plans; conduct recreational use attainability analyses (RUAAAs); support increased analytical infrastructure at public bacterial source tracking (BST) laboratories; demonstrate innovative BMPs on animal feeding operations and grazing lands; and collect and analyze water quality data for watersheds with impaired waterbodies.

Quarterly progress reports for ongoing projects were received on March 15, 2011 and June 15, 2011. To date, reports have been received for 100% of the projects.

### **Total Maximum Daily Load Program**

The CWA requires Texas to identify lakes, rivers, streams, and estuaries failing to meet or not expected to meet water quality standards and not supporting their designated uses (swimming, drinking, aquatic life, etc.). This list of impaired waterbodies is known as the *Texas 303(d) List* and must be submitted to the EPA for review and approval every two years. The *2008 Texas Water Quality Inventory and 303(d) List* was approved by EPA on July 9, 2008. The *2008 List* identifies over 830 impairments (waterbody-pollutant combinations). On August 25, 2010, the TCEQ approved the *2010 Texas Integrated Report for CWA §§305(b) and 303(d)* for submission to EPA. EPA must now take action to approve or disapprove the *2010 Texas 303(d) List of Impaired Waters*.

The State must then establish a Total Maximum Daily Load (TMDL) for certain waterbodies identified on the *303(d) List*. A TMDL defines the maximum amount of a pollutant that a waterbody can assimilate on a daily basis and still meet water quality standards. The pollution reduction goal set by the TMDL is necessary to restore attainment of the designated use of the impaired waterbody. The TMDL allocates pollutant loads between point sources and nonpoint sources. It also takes into account a margin of safety, which reflects uncertainty and future growth.



Based on the environmental target of the TMDL, an Implementation Plan (I-Plan) is then developed that prescribes the measures necessary to mitigate anthropogenic (human-caused) sources of that pollutant in that waterbody. The I-Plan specifies limits for point source dischargers and recommends BMPs for nonpoint sources. It also lays out a schedule for implementation. Together, the TMDL and the I-Plan serve as the mechanism to reduce the pollutant, restore the full use of the waterbody and remove it from the *303(d) List*. EPA must approve the TMDL, but the I-Plan only requires State approval.

TSSWCB shares responsibility with the TCEQ for the development and implementation of TMDLs. On September 27, 2006, at a joint meeting, the TSSWCB and the TCEQ renewed this partnership and approved a revised *Memorandum of Agreement on Total Maximum Daily Loads, Implementation Plans, and Watershed Protection Plans*. This framework for collaboration between the two agencies describes the programmatic mechanisms employed to develop and implement TMDLs and I-Plans.

TSSWCB is engaged in implementation activities that support approved I-Plans addressing agricultural or silvicultural NPS load reductions described in adopted TMDLs; collaborating with stakeholders on the development of I-Plans for adopted TMDLs that contain agricultural or silvicultural NPS load reductions; and, actively engaged in the development of TMDLs for waterbodies impaired due to known or suspected agricultural or silvicultural NPS pollution.

TSSWCB funded activities are mitigating bacteria, atrazine, dissolved oxygen, phosphorus and salinity impairments through TMDLs and I-Plans. Specific watersheds where TSSWCB efforts to restore water quality are channeled through TMDL development and implementation are discussed in the *Watershed Approach to Water Quality Planning and Implementation* section of this Report and shown on Figure 3. In order to abate agricultural and silvicultural NPS pollution, TMDLs and I-Plans will implement components of other TSSWCB Programs, such as the Water Quality Management Plan Program or the Water Supply Enhancement Program. Additionally, the TSSWCB CWA §319(h) NPS Grant Program and the State General Revenue NPS Grant Program frequently serve as funding sources to implement the agricultural and silvicultural NPS components of I-Plans. These programs are described in detail in other sections of this Report.

More information on the TSSWCB TMDL Program is available at <http://www.tsswcb.state.tx.us/tmdl>.

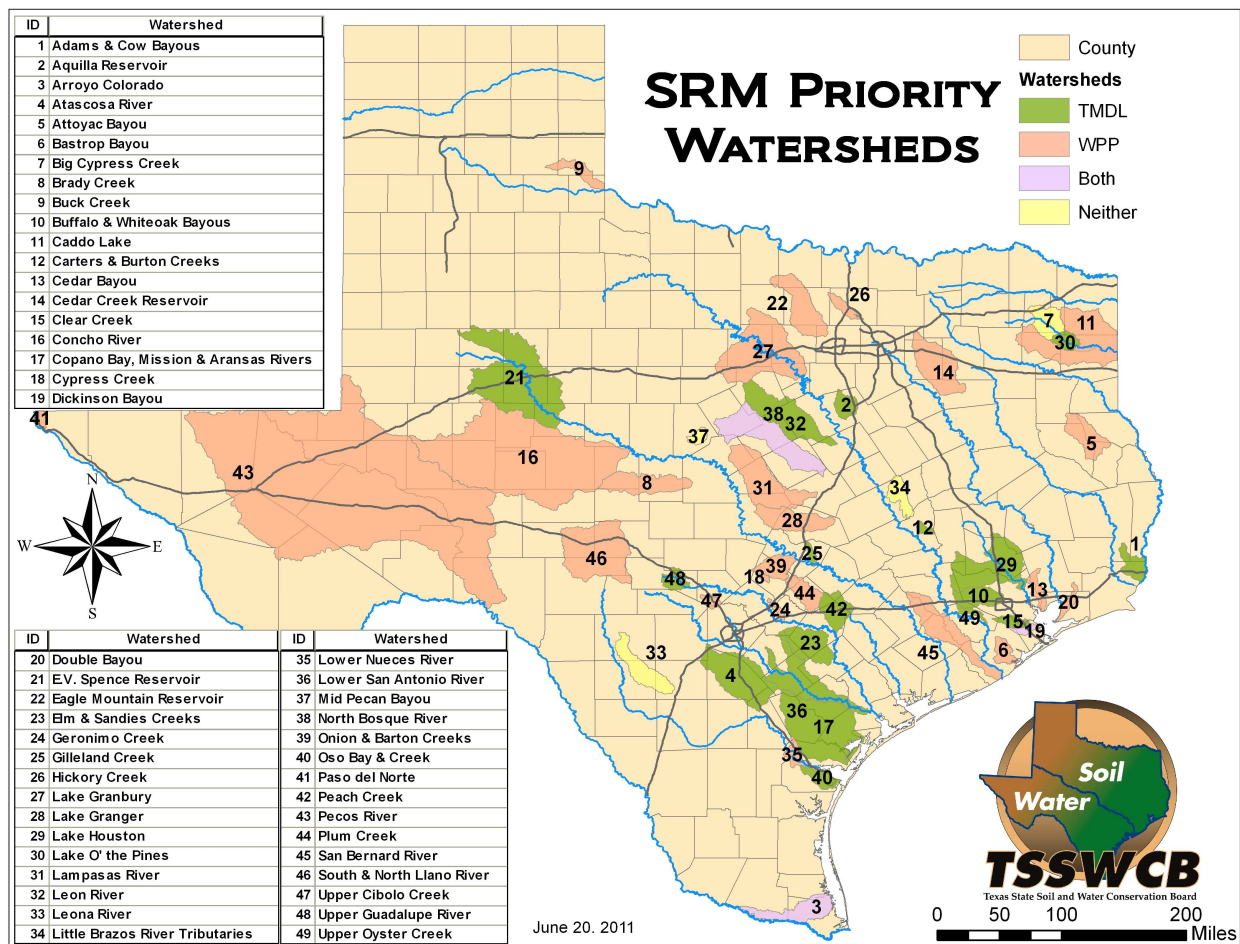


Figure 3– TSSWCB Efforts to Restore Water Quality

## Recreational Use Attainability Analyses

According to the *2008 Texas Water Quality Inventory and 303(d) List*, 295 waterbodies are impaired because they do not meet surface water quality standards for bacteria established to protect contact recreation use (in freshwater or saltwater) and/or oyster water use. The magnitude of bacteria impairments in Texas is evident when compared to all other types of water quality impairments. These bacteria impairments represent over 48% of all impairments on the *303(d) List*.

Critical to solving the breadth of bacteria impairments statewide is ensuring that the water quality standards designed to protect recreation use are appropriate and credible. On June 30, 2010, the TCEQ adopted major revisions to the Texas Surface Water Quality Standards, including significant modifications to contact recreation use and associated bacteria criteria. The Commission adopted expanding the categories of recreation use to create more options and differentiating the bacteria criteria to protect those uses, specifically by creating a four-tier approach including primary contact recreation, secondary contact recreation 1, secondary contact recreation 2, and noncontact recreation; previously, there were only two options. The adopted Standards were published in the *Texas Register* and became effective as a State rule on July 22, 2010. TCEQ submitted the revised Standards to EPA on August 4, 2010; EPA must now take action to approve these changes to the Standards in accordance with the federal CWA.

In order to change the presumed level of recreation use of a waterbody (i.e., primary contact recreation) to any of the other 3 tiers and the associated bacteria criterion, a recreational use attainability analysis (RUAA) must be completed for each waterbody and approved by TCEQ and subsequently EPA.

The purpose of an RUAA is to ascertain the actual recreation occurring on a waterbody, establish or verify a presumed use, and, if necessary, assign a more appropriate use. During an RUAA information is collected on water recreation activities, stream flow type, and stream depth; additionally, interviews from users who are present during surveys and those familiar with the waterbody may be conducted and a review of historical information may be completed. If the results of the RUAA indicate that a different, more appropriate use is warranted, the resulting change in the associated bacteria criterion may result in the waterbody no longer being identified on the *303(d) List* as impaired, thus negating the need to adopt a TMDL.

The TCEQ is in the process of conducting RUAA's on over 110 waterbodies across the state; TSSWCB is taking the lead on conducting RUAA's on another 12 waterbodies. Prior to conducting the surveys, local stakeholders will be contacted to seek input on each project's monitoring plan. TCEQ is coordinating communication with SWCDs through the TSSWCB. After the RUAA's are conducted, TCEQ will evaluate the information and again consult with stakeholders regarding potential site-specific revisions to the surface water quality standards for each waterbody.

Because adopted changes to the surface water quality standards affecting recreation use tiers and bacteria criteria must first be approved by EPA, any changes to specific waterbodies as a result of these RUAA's will not likely be reflected until at least the *2014 303(d) List* is published in April 2014.

Specific watersheds where TSSWCB is funding RUAA's are discussed in the *Watershed Approach to Water Quality Planning and Implementation* section of this Report and shown in Figure #3.

More information on RUAA's being conducted statewide is available at [http://www.tceq.state.tx.us/permitting/water\\_quality/wq\\_assessment/standards/ruaas/index](http://www.tceq.state.tx.us/permitting/water_quality/wq_assessment/standards/ruaas/index).

## Watershed Protection Plan Program

Watershed Protection Plans (WPPs) are locally-driven mechanisms for voluntarily addressing complex water quality problems that cross multiple jurisdictions. WPPs are coordinated frameworks for implementing prioritized water quality protection and restoration strategies driven by environmental objectives. Through the watershed planning process, TSSWCB encourages stakeholders to holistically address all the sources and causes of impairments and threats to both surface and ground water resources within a watershed.

WPPs serve as tools to better leverage the resources of local governments, state and federal agencies, and non-governmental organizations. WPPs integrate activities and prioritize implementation projects based upon technical merit and benefits to the community, promote a unified approach to seeking funding for implementation, and create a coordinated public education program. Developed and implemented through diverse, well integrated partnerships, a WPP assures the long-term health of the watershed with solutions that are socially acceptable and economically viable which achieve environmental goals for water resources. Adaptive management is used to modify the WPP based on an on-going science-based process that incorporates new knowledge into decision-making.

EPA requires certain expenditures through CWA §319(h) grants to be in accordance with a WPP. TSSWCB provides technical and financial assistance to local stakeholder groups to develop and implement WPPs to address significant agricultural or silvicultural NPS issues. Additionally, TSSWCB staff provides technical assistance in developing WPPs which are funded and facilitated by other entities, such as the TCEQ.

Partnerships with the Texas AgriLife Extension Service, the Texas Water Resources Institute and the TCEQ have resulted in the development of training programs for local stakeholder groups and watershed coordinators. The Texas Watershed Steward Program (<http://tw.s.tamu.edu/>) supports the development and implementation of WPPs by promoting a sustainable proactive approach to managing water quality at the local level by empowering individuals to take leadership roles in the management of water resources. The Texas Watershed Planning Short Course (<http://watershedplanning.tamu.edu/>) delivers training to watershed coordinators and water resource professionals to ensure WPPs are adequately planned, coordinated, implemented, and results properly assessed and reported. In order to build upon the fundamental knowledge conveyed through the Short Course, the State hosts Watershed Coordinator Roundtables (<http://watershedplanning.tamu.edu/developing/guidance/roundtable>) semi-annually to continue dialogue between watershed coordinators in order to facilitate interactive solutions to common issues being faced statewide.

On September 27, 2006, at a joint meeting, the TSSWCB and the TCEQ approved a revised *Memorandum of Agreement on Total Maximum Daily Loads, Implementation Plans, and Watershed Protection Plans*. This framework for collaboration between the two agencies describes the programmatic mechanisms employed to develop and implement WPPs.

WPPs currently sponsored by TSSWCB have significant agricultural or silvicultural NPS pollution components and are all funded through CWA §319(h) NPS Grants. While WPPs sponsored by TCEQ have significant water quality issues related to urban NPS pollution or wastewater treatment, most, to varying degrees, have agricultural or silvicultural NPS pollution components as well. There are several other watershed planning efforts across the state which are funded and sponsored by entities and agencies other than the TSSWCB or the TCEQ.

Specific watersheds, where TSSWCB efforts to restore water quality are channeled through WPP development and implementation, are discussed in the *Watershed Approach to Water Quality Planning and Implementation* section of this Report and shown in Figure 3.

In order to abate agricultural and silvicultural NPS pollution, WPPs will implement components of other TSSWCB Programs, such as the Water Quality Management Plan Program or the Water Supply Enhancement Program. Additionally, the TSSWCB CWA §319(h) NPS Grant Program and the State General Revenue NPS Grant Program serve as funding sources to implement the agricultural and silvicultural NPS components of WPPs. These programs are described in detail in other sections of this Report.

More information on the TSSWCB WPP Program is available at <http://www.tsswcb.state.tx.us/wpp>.

### **Water Quality Management Plan Program**

In 1993, the Texas Legislature passed Senate Bill 503 that directed the TSSWCB to implement Water Quality Management Plans (WQMPs) in Texas. The agency has implemented more than 6000 WQMPs since the inception of the program.

The WQMP Program is administered from five Regional Offices around the state. A poultry WQMP office was opened in Nacogdoches in January 2005. The Regional Offices are:

Dublin Regional Office  
Hale Center Regional Office  
Harlingen Regional Office  
Mount Pleasant Regional Office  
Wharton Regional Office  
Poultry Program Office (Nacogdoches)

A WQMP is a site-specific conservation plan developed through (and approved by) SWCDs for agricultural or silvicultural lands. The plan includes appropriate land treatment practices, production practices, management measures, technologies or combinations thereof. The purpose of WQMPs is to achieve a level of pollution prevention or abatement determined by the TSSWCB, in consultation with local soil and water conservation districts that is consistent with state water quality standards.

The TSSWCB selected requirements for a WQMP based on the criteria outlined in the *Field Office Technical Guide (FOTG)*, a publication of the United States Department of Agriculture's Natural Resources Conservation Service (NRCS).

Nutrient management must be included if nutrients are applied. If an animal feeding operation is involved (such as an unpermitted dairy), a WQMP will be planned with practices that individually or in combination with other practices will properly manage animal wastes. Waste utilization will be considered when agricultural wastes are applied. These WQMPs also have subcomponents for irrigation waters, erosion control, and are flexible enough to cater to a wide range of operating systems.

Agricultural and forestry landowners may enter into these cooperative agreements with their local district to control nonpoint source pollution from their operations. While the decision to develop a plan is voluntary, landowners have many reasons to do so. These plans provide for landowners to use best



management practices in their operations to protect their most precious agricultural resources by controlling erosion, conserving water, and protecting water quality. In addition, certified plans have the same legal status as Texas Commission on Environmental Quality (TCEQ) point source pollution permits, without having to go through that agency's regulatory process. Landowners may also receive financial incentives to help pay for implementing these plans.

It should be noted that an animal feeding operation that is required by law to operate within the confines of a water quality permit issued by the TCEQ may not participate in the TSSWCB program.

Water Quality Management Plans are especially useful for animal feeding operations. Depending on their size, animal feeding operations may be regulated by TCEQ as a point source or are unregulated and eligible for the TSSWCB's voluntary program. Generally, these feeding operations are classified according to the number of animals they have, calculated as "animal units"; however, TCEQ has adopted rules that provide if you have or exceed a certain number of animals, you will be regulated. Animal feeding operations with more than the number of animals listed in TCEQ rules must apply for a permit. Most animal feeding operations in Texas are not large enough to require a permit, which makes this program critical to protecting Texas' water quality.

In developing the Water Quality Management Plan, the TSSWCB, SWCDs, and the USDA Natural Resources Conservation Service (NRCS) provide technical assistance to help the landowner meet the criteria of the plan. A plan establishes practices and installations on the farm that adhere to best management practices specific for that area. The various installations that a plan calls for depend on the operation. A farm may include a combination of cropland, dairy cows, poultry, hogs or cattle.

These plans may also include erosion control measures such as terraces or grass waterways; or they may address nutrient management to help landowners avoid over-fertilizing their land, or over-applying animal waste. Although a plan will take into consideration each farm's unique components, all WQMPs generally attempt to control erosion, conserve water, and protect water quality.

Upon TSSWCB certification of a WQMP, a landowner may apply for a financial incentive that will help pay for implementing the plan. Local districts have varying rates for sharing the cost of plan implementation; however cost-share may not exceed 75% with a maximum \$10,000 grant limit per plan. Landowners receiving financial incentive have approximately are now given a specific time period to implement conservation practices, otherwise, their applications are cancelled automatically and the funds are reallocated to another plan. This approach hopefully will reduce the amount of lapsed funds.

The TSSWCB allocates money to local districts for financial incentives based on whether the area has impaired water bodies as determined by TCEQ, or if the TSSWCB had previously designated it as a priority. Most of these financial incentives were appropriated from General Revenue funds. Some plans received financial incentives from federal funds. State appropriations provided to local districts in FY08 amounted to \$2,171,740.00 to carry out a WQMP cost-share program in their district.

In addition to certifying WQMPs to ensure that they help abate nonpoint source pollution, the TSSWCB monitors WQMPs to ensure they are properly implemented. Each year, the TSSWCB conducts status reviews on a minimum of 10% of the plans. Additional technical assistance may be offered to a landowner when a WQMP is found noncompliant. In the unlikely case that the landowner does not achieve compliance with the WQMP, the TSSWCB may decertify the plan.

During FY03, the WQMP Program was administered from the TSSWCB office in Temple. The staff reductions in the FY04 budget made it necessary for the program to be reorganized and the Regional Offices activities are now coordinated through the Harlingen Regional Office. Additionally, plan certification authority was shifted from the Temple headquarters to each regional office. This change is already expediting the certification process and reducing postage expenditures, while maintaining the integrity and standards of the program.

The last adjustment involved the complaint process, which was also administered out of the headquarters office during FY03. Headquarters office no longer has an individual to do complaint inspections and all complaints are investigated from the appropriate Regional Office.

### **Current Status**

A total of 489 water quality management plans have been certified by the State Board through the third quarter of FY-2011. The yearly goal is 620 plans.

The period for obligating FY-11 cost-share funds was from September 1, 2010 through April 30, 2011. All funds not obligated through supplemental requests in May, 2011 were transferred to the Statewide Fund. Additional allocations will be considered at the July, 2011 State Board meeting.

Lapsed cost-share funds have been reduced by 73% in the last six years. Approximately 7.2% of total cost-share funds are being lapsed statewide at the present time. The next lapsed fund report for the FY-09 funding cycle will be completed in September, 2011.

### **Poultry Water Quality Management Plan (WQMP) Initiative**

#### **Background**

In 1994, the Texas State Soil and Water Conservation Board (TSSWCB) began assisting poultry operations with the establishment of the Northeast Texas Regional Office in Mt. Pleasant. Since 1994, over \$300,000 of WQMP Program funding has been provided annually to six soil and water conservation districts (SWCDs) in Northeast Texas to address animal feeding operations (AFOs). Shelby SWCD began receiving state cost-share funds in FY 2005 and the Nacogdoches SWCD began receiving cost-share funds in FY 2007.

In 1995, the TSSWCB initiated three federal Clean Water Act, §319(h) projects to demonstrate composting as a means for dead bird disposal, buffer strips, and proper land application of poultry litter. In 1996, the TSSWCB expanded its efforts by initiating a composting and marketing project. This effort to promote the installation of composters and other means of mortality management on poultry farms resulted in accelerated WQMP development.

In 1997, the Texas Legislature passed Senate Bill 1910, which required all poultry farms to have a TCEQ-approved method of dead bird disposal. The law took effect in March 1998. However, the rules were not adopted and did not take effect until fall 1999. It was during this time that requests for poultry WQMPs significantly increased due to pursuit of cost-share for mandated mortality management. This activity intensified the TSSWCB's poultry initiative.

In 1999, in response to water quality concerns and the initiation of TMDL development in the Big Cypress/Lake O' the Pines watershed, the TSSWCB began using federal §319 funds for cost-share in the

area in addition to the state Senate Bill 503 cost-share funds already directed to the watershed. The current implementation process of the TMDL has shown that the WQMP program has resulted in reduced nutrient loadings in the watershed. Due to rising concerns in nearby watersheds, the TSSWCB also included the Sam Rayburn and Toledo Bend Reservoir watersheds in its initiative in 1999. The TSSWCB expanded the poultry initiative again in 2001 to the Gonzales area.

In 2001, the 77<sup>th</sup> Legislature passed Senate Bill 1339, which requires all poultry facilities in Texas to operate in accordance with a WQMP certified by the TSSWCB. The review and certification process assures the plan includes appropriate practices, management measures, and schedules of implementation.

This law provided for a staggered-schedule of deadlines by which each producer, depending on their initial date of operation, must have requested the development of a WQMP from their soil and water conservation district. Any commercial poultry facility constructed after January 1, 2002 is required to have a WQMP prior to the receipt of any birds. All other commercial poultry facilities were required to have a WQMP no later than December 31, 2007.

Beginning in 2001, seven soil and water conservation district (SWCD) technicians were employed under federal Clean Water Act §319 contracts to develop WQMPs in poultry producing areas. Six of those contracts expired in 2004 and the seventh expired in 2005. An eighth §319 district technician was hired in 2003 with the Shelby SWCD and that contract expired in August 2007. Two more positions were hired by local SWCDs in FY 2007 to help with WQMP development for the Sanderson Farms expansion in the Waco area. Those contracts also expired.

The TSSWCB Nacogdoches Poultry Office was established in 2003. In 2005 two additional poultry Natural Resource Specialist FTE positions were added in Nacogdoches. In October 2007, two technicians were hired by local Soil and Water Conservation Districts, with one expiring in August 2008 and the other in August 2009. Because of expiring contracts and difficulty retaining temporary contract SWCD staff, TSSWCB submitted a 2008-2009 Legislative Appropriations Request for 4 additional FTEs to replace the expiring SWCD technician positions, so as to continue technical assistance for poultry producers in these areas. The budget request was approved by the 80<sup>th</sup> Texas Legislature and took effect September 1, 2007. The four positions are located in the four most heavily poultry populated areas of the state which are Shelby, Nacogdoches, Gonzales, and Leon Counties and they also serve the poultry producers in surrounding counties. Those 4 positions are part of the TSSWCB Poultry Program reporting to the Nacogdoches Poultry Office. Poultry Program staffing now consists of (1) Program Supervisor, (5) Natural Resource Specialists, (2) SWCD planning technicians, and (1) Administrative Assistant to assist poultry producers primarily in 29 poultry producing counties, but are available for other counties as needed. TSSWCB Regional Office staffs also assist poultry producers in their areas across the state.

Due to changes made by the U.S. Environmental Protection Agency (EPA) to the federal regulations for concentrated animal feeding operations (CAFOs), the Texas Commission on Environmental Quality (TCEQ) adopted a rule change in 2004 that required dry-litter poultry operations larger than 125,000 broilers or pullets, 82,000 layers or breeders, or 55,000 turkeys to operate under a water quality permit. However, due to a federal court decision by the U.S. 2<sup>nd</sup> Circuit Court of Appeals in February 2005, the EPA issued a notice that the date by which a permit and a Nutrient Management Plan must be obtained was extended to July 31, 2007 and EPA then further extended the date to February 27, 2009. Also in compliance with the court decision, the EPA released additional proposed rule changes in June 2006. Under the new rule, farms that do not actually discharge wastes to waters of the U.S. are not required to apply for permit coverage, thereby eliminating the need for dry-litter operations to apply. In advance of EPA's final rule, TCEQ made a rule change in September 2006 to allow CAFO size dry-litter poultry



farms an exemption to permitting if they obtain and follow a WQMP certified by TSSWCB. EPA's final rule became effective in December 2008. A supplemental guidance document is available from the TSSWCB for poultry producers that provides requirements in addition to the WQMP that are necessary to stay in compliance with the CAFO rules. Meetings were held in seven different poultry producing locations in 2008 to inform poultry producers of those additional requirements.

In 2009 the 81<sup>st</sup> Texas Legislature passed Senate Bill 1693 which prohibits TSSWCB from certifying or re-certifying a WQMP for a farm that is likely to cause a nuisance odor for neighbors within ½ of one mile of the farm unless it obtains an odor control plan.. It required TSSWCB to develop rules for determining if a nuisance odor from the facility is likely. The rules allow the farm the option to obtain consent from neighbors in lieu of the odor control plan. The law requires record keeping of litter usage by the poultry farm as well as receivers of poultry litter. It requires owners of new farms to complete an odor control prevention course from Texas A&M poultry science department.

### **Current Issues**

Currently TCEQ is in the process of revising the Texas CAFO rules to comply with the 2008 final federal CAFO rule as well as address some issues specific to Texas.

In May 2010, researchers from Texas A&M University and Stephen F. Austin State University began a project to evaluate technologies for controlling dust and odor from poultry farms. Electrostatic Particle Ionization and BioCurtains will be installed and evaluated at a working poultry farm in Central Texas to determine if these technologies can be effectively implemented to reduce dust and odors. The project is scheduled to be complete by April 2012. This project is funded by TSSWCB and NRCS.

As of this report, there have been 30 odor control plans submitted to TCEQ for approval, with 27 of those having been approved and three currently being reviewed by TCEQ.

Currently, the TSSWCB is aware of 1292 total dry-litter poultry farms, of which 474 (37%) are defined as Concentrated Animal Feeding Operations (CAFO). However, there is an ongoing challenge of identifying new poultry farms continually being constructed and put into production, others going out of business, farms changing bird placement numbers which can effect their AFO/CAFO status, and locating other poultry farms not yet identified.

In FY 2011, staff in the Poultry WQMP Program continues to develop, update, and review Water Quality Management Plans for poultry producers and provide assistance with all issues related to the Poultry WQMP Program. The Program Supervisor, two Natural Resource Specialists, and one Administrative Assistant staff the Nacogdoches Poultry Office. There are also three Natural Resource Specialists located in Center, Centerville, and Gonzales. In addition, two technicians continue to work for local Soil & Water Conservation Districts (SWCD) in Nacogdoches and Shelby Counties to assist the Poultry WQMP Program in the Nacogdoches area. Approximately 531 (41%) of the estimated 1292 dry-litter poultry farms in Texas are located in an eight-county area surrounding Nacogdoches. About 144 (27%) of the 531 farms in the 8-county area are large enough to be defined as Concentrated Animal Feeding Operations (CAFO), which require inspections conducted by TSSWCB staff which could result in needed revisions to their WQMP. In addition, the other existing WQMPs are reviewed regularly for needed updates and revisions. The office also assists other SWCDs in the state with poultry WQMP development and revision and complaint investigations as needed.

## **Coastal Coordination Council Function**

The Texas Coastal Management Program (CMP) was created to coordinate state, local, and federal programs for the management of Texas coastal resources. The program brings federal Coastal Zone Management Act (CZMA) funds to Texas to implement projects and program activities for a wide variety of purposes. The Coastal Coordination Council (CCC) administers the CMP; the TSSWCB is a statutorily-authorized member of the CCC.

The CCC is charged with adopting uniform goals and policies to guide decision-making by all entities regulating or managing natural resource use within the Texas coastal area. The CCC reviews significant actions taken or authorized by state agencies and subdivisions of state government that may adversely affect coastal natural resources to determine consistency with CMP goals and policies. In addition, the CCC oversees the CMP Grants Program and the Small Business and Individual Permitting Assistance Program.

The federal Coastal Zone Act Reauthorization Amendments (CZARA), §6217, requires each State with an approved CMP to develop a federally approvable program to control coastal NPS pollution. The CCC appointed a Coastal NPS Pollution Control Program workgroup to develop this document. The National Oceanic and Atmospheric Administration (NOAA) and the EPA jointly administer the program at the federal level. In Texas, the TSSWCB and the TCEQ hold primary responsibility for the program's development and implementation.

Section 6217 calls for implementation of management measures (§6217(g)) that will control significant nonpoint sources of pollution to coastal waters. Six source categories are addressed by these measures: agriculture, forestry, urban and developing areas, marinas, wetland/riparian areas, and hydromodification. States can use voluntary approaches combined with existing state authorities to achieve implementation of management measures. However, if the voluntary mechanisms are not effective, states must have backup enforcement authorities in place to ensure that management measures are implemented.

Texas submitted the Texas Coastal NPS Pollution Control Program to EPA and NOAA in December 1998. In July 2003, NOAA and EPA issued conditional approval of the Texas Coastal NPS Pollution Control Program. The agricultural and silvicultural portions of the program were approved without conditions. Texas has five years to meet the remaining conditions to gain full approval of the program. The NPS Work Group developed a list of potential options to address the remaining conditions and submitted it to NOAA and EPA in July, 2008 for approval. In May, 2009 EPA and NOAA requested further information from Texas before lifting the conditions on its approval. TCEQ is finalizing a letter to NOAA and EPA that describes the State's approach to addressing the remaining conditions.

The TSSWCB is responsible for implementing the agricultural and silvicultural management measures of the program. Mechanisms the TSSWCB uses to abate agricultural and silvicultural NPS pollution in the coastal zone include: the agency's Water Quality Management Plan Program, the CWA §319(h) NPS Grant Program, the Total Maximum Daily Load Program, and the Watershed Protection Plan Program.

Fifteen SWCDs are located in the Coastal Management Zone and work with landowners to implement WQMPs. For over ten years, more than \$300,000 in state appropriations has been spent annually in the coastal zone to provide financial assistance through SWCDs to implement about 2196 WQMPs on agricultural land.

Many of the WPPs and TMDLs that the TSSWCB is engaged in are in the coastal zone. WPPs being developed or implemented in the Coastal Zone include Arroyo Colorado, Bastrop Bayou, Armand Bayou, Cedar Bayou, Double Bayou, Dickinson Bayou and San Bernard River, Cedar Bayou, and Lower Nueces River. TMDLs being developed or implemented in the Coastal Zone include Adams and Cow Bayous, Clear Creek, Copano Bay, Aransas and Mission Rivers, Dickinson Bayou, and Oso Bay and Creek.

Implementation of the silvicultural management measures in the coastal zone is through a CWA §319 grant to the Texas Forest Service.

The CCC went through the Sunset Review process this year. Sunset legislation (SB656) passed and was signed by the Governor. The legislation abolishes the CCC and transfers its functions to the Land Commissioner and the General Land Office. It also establishes a Coastal Coordination Advisory Committee to advise the Land Commissioner on matters related to the CMP. The Advisory Committee includes a representative of the TSSWCB designated by the Chairman of the State Board. The act takes effect on September 1, 2011. CCC information can be found at <http://www.glo.texas.gov/GLO/boards-and-commissions/coastal-coordination-council/index.html>.

More information on the Texas Coastal Nonpoint Source Pollution Control Program is available at <http://www.tsswcb.state.tx.us/coastalnps>.

### **Texas Groundwater Protection Committee Function**

Established by the Texas Legislature in 1989, the Texas Groundwater Protection Committee (TGPC) bridges the gap between State groundwater programs, improves coordination between member agencies and works to protect groundwater as a vital resource; the TSSWCB is a statutorily-authorized member of the TGPC.

The Texas Water Code sets non-degradation of the State's groundwater resources as the goal for all State programs and asserts that groundwater be kept reasonably free of contaminants that interfere with its present and potential uses. The TGPC implements the State's groundwater protection policy which:

- Requires that pollution discharges, waste disposal and other regulated activities not harm public health or impair current or potential groundwater use;
- Recognizes the variability between aquifers;
- Acknowledges the importance of water quality;
- Balances the protection of the environment and the long-term economic health of the state; and,
- Recognizes the use of the best professional judgment of the responsible state agencies to implement the policy.

The Texas Water Code requires that the TGPC biennially prepare a report that provides recommendations to improve groundwater protection for legislative consideration and describes the TGPC's activities for the preceding biennium. The report, *Activities and Recommendations of the Texas Groundwater Protection Committee – Report to the 82nd Legislature*, was published in January 2011 by TCEQ. Twelve groundwater protection recommendations are presented in the report requesting legislative consideration in three topical areas: 1) strengthen groundwater conservation and water quality protection efforts, 2) advance groundwater management and protection through enhanced data collection and availability, and 3) support of groundwater research. Five of the twelve recommendations specifically are targeted to TSSWCB programs or grant-funded projects.

Mechanisms the TSSWCB implements in order to prevent and abate agricultural and silvicultural NPS pollution impacting groundwater include the agency's Water Quality Management Plan Program, CWA §319(h) NPS Grant Program, State General Revenue NPS Grant Program, Total Maximum Daily Load Program, and Watershed Protection Plan Program. These programs are described in detail in other sections of this Report. High priority aquifers where TSSWCB has historically committed agency resources include the Seymour Aquifer and the Ogallala Aquifer.

More information on the TGPC is available at <http://www.tgpc.state.tx.us/>.

## **Watershed Approach to Water Quality Planning and Implementation**

Protecting the State's rivers, streams, lakes, bays, and aquifers from the impacts of NPS pollution is a complex process. Texas uses a Watershed Approach to focus efforts on the highest priority water quality issues of both surface and ground water. The Watershed Approach is based on the following principles:

- Geographic focus based on hydrology rather than political boundaries;
- Water quality objectives based on scientific data;
- Coordinated priorities and integrated solutions; and,
- Diverse, well-integrated partnerships.

The TSSWCB applies the Watershed Approach to managing NPS pollution by channeling its efforts to restore and protect water quality through the development and implementation of WPPs and TMDLs. Specific watersheds where agricultural and/or silvicultural NPS pollution is contributing to a water quality impairment or concern to an extent which TSSWCB believes is sufficient to justify expenditure of agency resources are shown on the map Figure 3. This list of "priority" watersheds is frequently updated by the TSSWCB. Specific information on each watershed, including waterbody name and segment number, overall water quality condition, pollutants of concern, specific mechanism (TMDL, I-Plan, WPP, UAA) being utilized to restore water quality with lead agency indicated, and links to relevant activities associated with restoration of the waterbody, is available at <http://www.tsswcb.state.tx.us/watersheds>.

## **Information Technology**

### **Disk Encryption to Further Safeguard Data**

As part of its ongoing efforts to protect sensitive data on its network servers and PCs, TSSWCB staff have begun to utilize full disk encryption on laptop PCs identified as potentially containing sensitive data.

Though not currently required by the State of Texas to do so, agency management felt this step was a worthwhile investment in its efforts to secure the potentially sensitive data of its employees and stakeholders.

### **Windows 7 Integration**

Agency staff continued to work through the process of integrating the Windows 7 operating system from Microsoft with agency network services and critical desktop applications. Most significant challenges related to network services have been resolved and the operating system has been successfully deployed for some employees.

The primary challenge that remains is in best supporting complex engineering applications that will not run natively on the new system. IT staff continues to address the remaining issues with staff and software vendors.

The TSSWCB made the decision, along with many organizations, not to run Microsoft's previous operating system, Vista, on its PCs and instead opted to stay with the venerable Windows XP operating system.

With the challenges, though, IT staff recognizes that Windows 7 will bring some welcome modernization that will include features and security improvements that should benefit agency users and the services they provide.

Due to budget limitations, Windows 7 is currently planned for deployment only with new PC systems that are replacing end-of-life deployments or systems that are replaced due to significant hardware failures.

### **PC Hardware Upgrades**

The first half of 2011 also saw a continuation of the work to replace the oldest and most problematic agency desktop PCs with more capable and reliable units. This work was part of a continuous process that aims to lessen the risk of unacceptable levels of downtime that could occur following PC hardware failures.

Each of the machines replaced was at or, in most cases, significantly beyond the PC life cycle recommendations from the Texas Department of Information Resources (DIR). All purchases were made in accordance with DIR guidelines through a DIR-approved vendor.

## **Public Information/Education Report**

### **Background**

The purpose of the public information/education program is to provide leadership and coordination of information/education programs relating to the agency and district programs, services, operations and resources. The TSSWCB prepares and disseminates public information relative to the agency and district functions, programs, events and accomplishments for the public and to farmers and ranchers. TSSWCB staff coordinates seminars, conferences, workshops, displays at trade shows and training for district directors and district bookkeepers, conservation professionals, youth groups and other entities. Staff provides guidance to districts with their own individual information/education programs as well as regional and state information/education programs initiated by districts. Staff prepares and disseminates press releases, news stories and printed promotional products. The TSSWCB monitors the use of the publications and use of information. Staff represents the agency as needed with various information/education groups and entities. The TSSWCB has a cooperative agreement with the Association of Texas Soil and Water Conservation Districts to provide assistance and help coordinate district involvement and participation with Association's Information/Education Committee and its programs.

### **District Program Development Workshop**

A district program development workshop was held January 25-26 and June 28-29, 2011 to provide training specifically for newly elected soil and water conservation district directors, although all district directors and district employees are encouraged to attend the training. In addition, a cooperative effort with the USDA Natural Resources Conservation Service permits a limited number of new NRCS district conservationists to attend the training.



Key topics addressed in the training include:

- the history, powers and duties of the Texas State Soil and Water Conservation Board (TSSWCB),
- the interaction but different authorities of the local soil and water conservation district (SWCD), Texas State Soil and Water Conservation Board, and the Natural Resources Conservation Service,
- the qualifications, terms and duties of SWCD directors,
- the general powers and duties of SWCDS
- the proper method of conducting a local SWCD meeting,
- an overview of current Texas State Soil and Water Conservation Board program responsibilities
- ethics training for SWCD directors
- equal employment opportunity training for SWCD directors
- fiscal operations and responsibilities of SWCDS
- the working relationships between other state and national conservation organizations.

### **2010 Summer Teacher Workshops**

Several teacher workshops are held each summer by soil and water conservation districts in cooperation with the TSSWCB on conservation and natural resource issues. The Texas Environmental Education Advisory Committee to the Texas Education Agency approves the content of these workshops, sponsored by the TSSWCB. As an approved Environmental Education Professional Development Provider, teachers are able to get 16 credit hours toward their required continuing education units (CEUs) for recertification while experiencing nature and the outdoors.

Pedernales SWCD hosted a Teachers Workshop near Johnson City, Texas at the Franklin Family Ranch June 7-9m 2011. Topics covered were soils, the water cycle, plants in the Texas Hill Country, prescribed burning, and wildlife biology.

### **2011 Texas Conservation Awards Program**

Each year, the TSSWCB and the Association of Texas Soil and Water Conservation Districts co-sponsor the Texas Conservation Awards Program to recognize and honor those who dedicate themselves and their talents to the conservation and wise use of renewable natural resources. The 2011 Awards Program marks the <sup>33rd</sup> year of this joint program.

Local districts select their outstanding individuals as winners and submit them by mid-February each year for regional judging. Those selected as regional winners are honored each May at regional Awards Banquets. From these regional winners, a state winner is selected for the Outstanding Conservation Districts, Outstanding Conservation Teacher, Poster Contest, and the Essay Contest. These individuals are invited to the Annual State Meeting for recognition.

The conservation awards program provides competition and incentives to expand and improve conservation efforts, resource development, and increase the wise utilization of renewable natural resources. As a result, soil and water conservation districts, and both rural and urban citizens of Texas are benefited.

Soil and water conservation districts may enter their local recognition honorees in any of 10 categories (East Texas has an additional category of Forestry Conservationist), depending on appropriateness to the category description. For the youth of the district, there is also a poster and essay contest. The categories and a brief description of each are:

### *Outstanding Conservation District*

Awarded to the winning soil and water conservation district in each area for the most outstanding program during the past fiscal year.

### *Resident Conservation Rancher*

Awarded to the outstanding resident conservation rancher in each area. They must be a resident of the district, perform ranching activities within the district and be a cooperator with the district from which the entry was submitted. The rancher may have other business or professional interests.

### *Resident Conservation Farmer*

Awarded to the outstanding resident conservation farmer in each area. They must be a resident of the district, perform farming activities within the district, and be a cooperator with the district from which the entry was submitted. The farmer may have other business or professional interests.

### *Absentee Conservation Farmer/Rancher*

Awarded to the outstanding absentee conservation farmer or rancher in each area. They must reside outside the district, but operate farming or ranching activities within the district and be a cooperator with the district from which the entry was submitted. The person may have other business or professional interests.

### *Water Quality Management Plan*

Awarded to the outstanding Water Quality Management Plan recipient in each area. They must be a district cooperator who has a district approved Water Quality Management Plan and has incorporated water quality into their farming or ranching activities and soil and water conservation work.

### *Essay Contest –Two Categories (13 and under and 14 to 18 years of age)*

Essays (topic: “Why Soil and Water Conservation is Important to My Future”) are to be submitted to local SWCDs for local judging. Each local district will judge the entries and submit three essays to the TSSWCB for competition on the area level. Plaques will be awarded to 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place winners on the area level and state winners will be selected from the area winners. This contest is open to students, in two categories, one for those ages 13 and under, and the other category for those ages 14 to 18 years of age and does not jeopardize Texas University Interscholastic League eligibility.

### *Poster Contest*

Posters should address one of the following subjects: “Forests for People—More Than You Can Imagine” or “Conservation Habits = Healthy Habitats”. Posters shall be submitted to local SWCDs for local judging. Each local district will judge the entries and submit three posters to the TSSWCB for competition on the area level. Plaques will be awarded to the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place winners on the area level and state winners will be selected from the area winners. This contest is open to students, 12 years and under, and does not jeopardize Texas University Interscholastic League eligibility.

### *Business/Professional Individual*

Awarded to the outstanding man or woman in the business community who has rendered the most unselfish conservation service in each area. Representatives of the news media (radio, television, newspaper, magazines, etc) who contribute to or provide support for conservation shall also be considered eligible for this award. (This award is not for individual conservation practices or individuals who, because of employment, assist with or augment the work of the soil and water conservation district.)

### *Conservation Teacher*

Awarded to the outstanding teacher of conservation in schools in each area. Teachers of all grade levels are eligible for this award.

### *Wildlife Conservationist*

Awarded to the outstanding wildlife conservationist in each area. They must be a district cooperator who has incorporated wildlife conservation into their farming and ranching activities.

### *Conservation Homemaker*

Awarded to the outstanding conservation homemaker in each area. The homemaker and or family must own or operate a farm or ranch, be a district cooperator and have knowledge of the conservation programs being implemented.

### *Conservation District Employee*

Awarded to the outstanding soil and water conservation district employee who exhibits a degree of knowledge, skill, ability, and leadership that clearly results in superior job performance far above the basic requirements of the position.

### *Forestry Conservationist (Area IV only)*

Awarded to the outstanding forestry conservationist for the most outstanding farm forestry conservation program in the commercial forest areas of Texas. They must be a district cooperator or an individual who has implemented conservation practices on their land and has done missionary work for conservation and the district program.

### **Soil & Water Stewardship Public Speaking Contest**

The Soil & Water Stewardship Public Speaking Contest is open to high school FFA students interested in soil, water and related renewable natural resource conservation. The contest is aimed at broadening students' interest and knowledge of conservation and how individuals must depend on and take care of the world around them for survival. The contest is coordinated through the Texas FFA, with contests at the local, area and state level. Local winners compete in the 10 state FFA areas and the first and second place winners at the area level compete for the state title. The theme of the 2011 contest is "Forests for People—More than You Can Imagine".



To prepare for the contest, students were to consult with their Agriculture Science teacher and work with their local soil and water conservation district. Students are encouraged to visit with their local SWCD to find out more about conservation practices in their area.

This project is a partnership between the Texas FFA, the Vocational Agriculture Teacher's Association of Texas, The Texas State Soil and Water Conservation Board, and the Association of Texas Soil and Water Conservation Districts. The State Winner of the Soil and Water Stewardship Public Speaking Contest is invited to attend the Annual State Meeting each year and asked to deliver their winning address.

### **Wildlife Alliance for Youth**

The Wildlife Alliance for Youth (WAY) contests offer opportunities at the local district level for 4-H and FFA students to demonstrate their knowledge of the outdoors on wildlife habitat and management, wildlife laws, sportsmanship and other factual information on wildlife. The program offers awards to the high scoring FFA chapter in each of the five state regions and awards to the first, second and third place high scoring teams at the state event. It is a powerful tool for students to become involved in conservation and obtain an appreciation for wildlife.

Agriculture Science students, who compete in the WAY Contest, first acquire the foundational knowledge and skills for this event through the Agscience 381 - Wildlife and Recreation Curriculum. The WAY contests address the following nine subject areas in Wildlife and Recreation Management: Wildlife Plant Identification; Wildlife Plant Preferences; Wildlife Biological Facts; Wildlife Habitat; Habitat Management; Game Laws; Hunter and Boater Safety; Compass and Pacing; and Identification Techniques. FFA and 4-H youth should have an understanding of these subject areas before they compete.

The WAY contests are held in the five Texas State Soil and Water Conservation Board areas. Area IV (East Texas) holds their contest in the fall. Area V (North Central), Area I (Panhandle), Area II (West Texas) and Area III (South Texas) all hold their contests in the spring. Each team is certified to the area level by their local SWCD. The WAY State Contest is held each year in one of the geographical areas of the state. Approximately 2,000 youth participate in the regional contests and statewide contest competition.

The Texas State Soil and Water Conservation Board, Association of Texas Soil and Water Conservation Districts, USDA- Natural Resources Conservation Service, Texas Parks and Wildlife Department, Texas A&M University, Cooperative Extension service, and the Texas Education Agency, along with local soil and water conservation districts (SWCD), all partner in the success of the youth organization.

### **State Woodland Clinic and Contest**

The Texas State Woodland Clinic and Contest is held annually in the month of April. It is a joint effort between local soil and water conservation districts, Stephen F. Austin University School of Forestry and the NRCS-USDA.

The contest is an opportunity for 4-H and FFA youth to demonstrate their expertise in different aspects of forestry management and skills in identification of needed practices and management techniques. Competition is between teams composed of four members representing either a 4-H Club or a FFA Chapter. Prior to the state contest several local districts conduct contests for 4-H Clubs and FFA Chapters within their district and the surrounding area.

The contest began in the late 1950s and was initiated by local SWCDs and timber industry personnel to develop forestry and woodland curriculum in schools in the commercial timber area of the state (East Texas Piney Woods). The clinic and contest have experienced widespread popularity and now has participation from outside of the commercial timber area on a regular basis. The state participation level for teams averages around 55 teams per year, with the vast majority of teams being composed of FFA Chapters. Winners at the state level are eligible to participate in the four states regional woodland contest held each May in one of four states. Texas, Louisiana, Arkansas and Oklahoma host the regional contest on a rotational basis.

### **Regional Woodland Contest**

The four states regional woodland contest is sponsored by soil and water conservation districts in each of the four states with program and technical support provided by USDA-NRCS and Resource Conservation and Development (RC&D), state organizations and industry personnel. The soil and water conservation districts in Texas hosted the first four states or southern regional woodland contest in 1984.

Each state is allowed to send a maximum of six teams to the regional contest. Each state has a competition that determines the six teams from that state that may enter in the regional contest. Those teams may be composed of individuals representing either a 4-H Club or an FFA Chapter.

### **Conservation Education Video Library**

The Association of Texas Soil and Water Conservation Districts has established and updated a conservation related video library that is maintained by TSSWCB staff on their behalf for the benefit of local districts and educators. Currently, there over 200 conservation-related videos in the library that are available to districts and teachers. The Association of Texas Soil and Water Conservation Districts' Public Information/Education Committee pays the first transit postage costs to mail the video(s) to the requester. Postage for returning will be the responsibility of the borrower and all videos must be insured upon return. Borrowing privileges are for a length of two weeks and must be returned upon date specified by the librarian. Videos can be ordered through local soil and water conservation districts or by contacting the TSSWCB. From December to July, there have been 29 videos and 1 DVD of various titles loaned out to districts and teachers across the state.

### **Nonpoint Source (NPS) Pollution Watershed Flow Model**

The NPS model is a hands-on representation of a landscape that allows students to understand how water sources can become polluted from nonpoint sources. The plastic landscape structure has industrial, undeveloped, agricultural, and residential and roadway features complete with individual houses, trees, cars, tractors and cows. When "rain" falls on the model, the runoff flows into a city lake. Using various products to add color to the water, the model demonstrates how potential pollutants are picked up by runoff.

The model is a layout of a watershed that includes all the factors that may contribute to polluting our water. (Urban features such as: factories, parking lots, construction sites, lawn chemicals and golf courses and rural features such as: forested land, dairies, feedlots, cropland and pastureland). To demonstrate how each type of potential pollutant can enter a water body Kool-Aid and cocoa are used to color "runoff". Grape Kool-Aid is used to represent pollution from factories and oil from parking lots and roads. Orange Kool-aid represents pollution from lawn chemicals, golf courses, and cropland and pastureland chemicals. Cocoa is used to represent pollution from construction sites, forested land, dairies and feedlots. The

Kool-aid and Cocoa are sprinkled on the model in the areas that represent each type of pollutant. Once all the pollutants are sprinkled on the model a spray bottle with water is use to represent rainfall. As the pollutants get wet and start to runoff the students can see how the water carries them to the streams and into the lake where we get our drinking water. Once all the pollutants have run into the lake the students can see how these factors have the potential to make surface waters unattractive and unsafe. This demonstration leads to a discussion about how to protect the water quality and prevent our water from looking like the model.

## **Invasive Species**

The 81<sup>st</sup> Legislature created the Texas Invasive Species Coordinating Committee consisting of representatives of: the Department of Agriculture; the Parks and Wildlife Department; the State Soil and Water Conservation Board; the Texas AgriLife Extension Service; the Texas Forest Service; and the Texas Water Development Board.

The Invasive Species Coordinating Committee is administratively attached to the State Soil and Water Conservation Board and is charged with serving as a catalyst for cooperation between state agencies in the area of invasive species control and to facilitate governmental efforts, including efforts of local governments and special districts, to prevent and manage invasive species. The coordinating committee was specifically tasked with securing non-state funds for invasive species control. The member agencies of the coordinating committee held their first organizational meeting in November 2009. Since that time the committee has failed to secure non-state funding for the control of invasive species due to the down turned economy.

## **Water Supply Enhancement Program Status Report**

### **Background**

The 81<sup>st</sup> Legislature continued funding for the Water Supply Enhancement Program by providing \$4,503,641.00 in General Revenue Funds in FY11. These funds were directed to be used for continuation of brush control projects designated by the Soil and Water Conservation Board. Since the beginning of the Water Supply Enhancement program in 1999 there has been over 741,000 acres of brush treated in various watersheds throughout the State.

Provided the following SWCD with Water Supply Enhancement Program Updates, Water Supply Enhancement Program Certification, and /or Contracts

#### **Area 2 Districts**

Middle Concho SWCD  
Tom Green County SWCD  
Gillespie County SWCD  
Kendall SWCD

Eldorado-Divide SWCD  
Pedernales SWCD  
Kerr County SWCD  
Bandera County SWCD

#### **Area 3**

McMullen County SWCD  
Caldwell/ Travis SWCD  
Webb County SWCD

LaSalle County SWCD  
Comal/Guadalupe SWCD  
Frio SWCD

## **Area 5**

Archer County SWCD

Lower Clear Fork/Brazos SWCD

Pecan Bayou SWCD

Bosque SWCD

Little Wichita SWCD

### **Changes in the Water Supply Enhancement Program**

As per SB 1808-

The purpose of the water supply enhancement program is to increase available surface water and groundwater through:

- (1) Selective control, removal, or reduction of noxious brush species that are detrimental to water conservation and
- (2) Revegetation of land on which noxious brush has been controlled, removed, or reduced.

### **The TSSWCB shall establish goals for the Water Supply Enhancement Program that must include:**

- A goal describing the intended use of a water supply enhanced or conserved by the program, such as agricultural purposes or drinking water purposes
- A goal describing the populations that the water supply enhancement program will target

### **The TSSWCB shall adopt rules establishing:**

- Criteria for accepting project proposals
- System to prioritize projects for each funding cycle, giving priority to projects that balance the most critical water conservation need and the highest projected water yield
- The criteria required by Subsection (a) must include a requirement that each proposal state the projected water yield of the proposed project, as modeled by a person with expertise in hydrology, water resources, or another technical area pertinent to the evaluation of water supply. The board shall consult with stakeholders, including hydrologists and representatives from soil and water conservation districts, to develop by rule standard methods of reporting the projected water yield under Subsection (b).

### **In prioritizing projects under Subsection (a) (2):**

- The need for conservation of water resources within the territory of the project, based on the state water plan adopted under Section 16.051, Water Code
- Projected water yield of areas of the project based on soil, slope, land use, types and distribution of trees, brush, and other vegetative matter, and proximity of trees, brush, and other vegetative matter to rivers, streams, and channels
- Any method the project may use to control brush;
- Cost-sharing contract rates within the territory of the project
- The location and size of the project;
- The budget of the project and any associated
- Requests for grant funds submitted under this title;
- The implementation schedule of the project; and
- The administrative capacities of the board and the
- Entity that will manage the project.

## **Feasibility Studies**

- The board shall establish a process for providing to persons submitting project proposals assistance in locating a person with expertise in hydrology, water resources, or another technical area pertinent to the evaluation of water supply to conduct a feasibility study for a project using a water yield model as described by Section 203.053(b).
- The board may dedicate a portion of its funds for feasibility studies
- To receive funding for a feasibility study a person must submit to the board an application for funding that includes a statement of the projects anticipated impact on water resources

## **Water Supply Enhancement Plans**

- Plans must include a ten year plan
- Provision for follow-up treatment
- Requiring landowners to maintain brush canopies under 5% for a period of ten years
- Periodic Status reviews throughout the ten year period
- No other state funds may be cost shared to maintain brush canopy

Currently the Water Supply Enhancement Program is administrating 13 projects throughout the State. Listed below are the projects in their respective areas and the projects contact person:

- Twin Buttes- Tuffy Wood
- Pedernales Project- Melissa Grote
- Guadalupe River Project- Melissa Grote
- Edwards Aquifer Project (Bandera County)-Melissa Grote
- Fort Phantom Hill- Cody York
- Nueces River Project- Adrian Perez
- Frio River Watershed – Adrian Perez
- Lower Guadalupe River – Tuffy Wood
- Carrizo-Wilcox Aquifer- Tuffy Wood
- Palo Pinto- Cody York
- Bosque Project- Cody York
- Little Wichita River (Archer and Clay Counties)- Cody York
- Lake Brownwood Project- Cody York

## **Staff Activities**

- Evaluate all current projects
- Assisted landowners in Twin Buttes, Pedernales, Pecan Bayou, Lake Arrowhead, Lake Kickapoo, Bosque, Guadalupe River and Edwards Aquifer with Brush contracts and certifications
- Assist Texas Sunset Advisory Commission on Water Enhancement Program
- Assisted UCRA with the Twin Buttes lake basin project
- Held Work Group meetings in Pedernales, Guadalupe, Bosque, Wichita River, Carrizo-Wilcox, Lake Brownwood, Edwards Aquifer and Lower Guadalupe
- Discussed project application with Tom Green SWCD, Eldorado Divide SWCD, and Middle Concho SWCD, Pedernales SWCD, Gillespie SWCD, Kendall SWCD, Comal- Guadalupe SWCD, Bandera SWCD, Kerr SWCD.

- Partnered with USGS and UGRA on model for Guadalupe
- Met with San Antonio River Authority to discuss possible modeling of Lower Guadalupe river
- Begin implementing SB1808

### **Water Savings from Brush Control**

Water yield expectations originate from brush control feasibility studies and academic research from a variety of sources.

**State Cost-Share Grants 2000 – 2010-----\$33,771,142**

**Landowner Contributions 2000 – 2010-----*In Excess of* \$14,000,000**

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**Table 2. Total Water Savings**

<b>Watershed Project</b>	<b>State Cost Per Treated Acre</b>	<b>Treated Acres</b>	<b>Gallons/Acre/Year</b>	<b>Gallons/Year Based on Treated Acres</b>	<b>Total Water Yield for Life of the Project<sup>1</sup></b>
Lake Ballinger completed	\$45.00	7,799.70	55,354	431,744,593.80	4,317,445,938
Oak Creek Lake completed	\$47.00	16,224	47,225	766,178,400.00	7,661,784,000
Lake Champion completed	\$43.00	14,993.50	31,535	472,820,022.50	4,728,200,225
Mountain Creek completed	\$49.00	1,440	46,389	66,800,160.00	668,001,600
Greenbelt Reservoir completed	\$87.50	571	977,553	558,182,763.00	2,232,731,052
Hubbard Creek completed	\$ 58.75	506	977,553	494,641,818.00	1,978,567,272
Pecos/Upper Colorado completed	\$ 70.78	10,580.12	1,450,037	15,341,564,935.43	61,366,259,742
North Concho River completed	\$45.50	327,000	26,068.08	8,524,262,160.00	85,242,621,600
Lake Brownwood	\$146.34	1004.8	95,696.25	96,155,592	961,555,920
Bosque River	\$162.50	752	26,068.08	19,603,196.16	196,031,961.6
Wichita River	\$20.92	24,273.8	162,035	3,933,205,183	39,332,051,830
Nueces River	\$27.65	10,167.52	73,056	742,798,341.12	7,427,983,411.2
Frio River	\$24.22	7,111	73,056	519,501,216	5,195,012,160
Canadian River completed	\$92.49	16,850	817,651	13,777,419,350.00	55,109,677,400
Pedernales River	\$72.00	70,760	217,790	15,410,820,408	154,108,204,000
Upper Guadalupe	\$123.71	2,539.75	217,790	553,132,152.5	5,531,321,525
Edwards Aquifer	\$155.75	896	217,790	195,139,840	1,951,398,400
Twin Buttes	\$68.03	226,844.2	25,028	5,677,456,637.6	56,774,566,376
Fort Phantom Hill Reservoir	\$0.00	0	0	0	0
Palo Pinto Reservoir	\$0.00	0	0	0	0
Carrizo- Wilcox Aquifer	\$262.47	102.9			
O.C. Fisher Reservoir	\$104.98	1300	26,068.08	33,888,504	338,885,040
Lower Guadalupe	\$101.50	197	217,790	42,904,630	429,046,300
<b>TOTAL</b>		<b>739,561.39 ac.</b>		<b>67,581,426,769.11 67.5 Billion Gallons</b>	<b>494,783,414,413 494 Billion Gallons</b>

\*The total water yield is based on the watershed projects having a lifespan of 4 or 10 years depending on the type of brush treated.

# Attachments